

Customer No. 24498
Attorney Docket No. PU020105
Advisory Action Date: 12/15/2009
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Listing of the Claims

Below is a listing of the pending claims in the application:

1. (currently amended) A method for reducing channel change times, comprising:

receiving a channel change command;

immediately initiating caching of an incoming data stream associated with a newly selected channel in response to the channel change command, the cached data stream including decoder synchronization data;

finding program specific information included within the incoming data stream;

~~transferring the cached data stream for decoding in response to the program specific information; and~~

finding the a first instance of decoder synchronization data within the cached data stream including decoder synchronization data received before the program specific information found in the incoming data stream; and

decoding the incoming data stream associated with the newly selected channel in response to the first instance of decoder synchronization data.

2. (previously presented) The method of claim 1, wherein the program specific information comprises program association table data and program map table data.

3. (previously presented) The method of claim 1, wherein the step of finding the program specific information includes filtering data from the cached data stream.

4. (previously presented) The method of claim 3, wherein the data filtered from the cached data stream comprises program map table data.

5. (previously presented) The method of claim 1, wherein the decoder synchronization data corresponds to sequence headers according to the MPEG standards.

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6. (previously presented) The method of claim 1, wherein the step of finding the program specific information comprises:

finding program association table data within the incoming data stream;
finding program map table data using the program association table data; and
finding at least one of video program identification data and audio program identification data using the program map table data.

7. (currently amended) An apparatus, comprising:
memory means for immediately initiating caching of an incoming data stream associated with a newly selected channel responsive to a channel change command, the cached data stream including decoder synchronization data;

processing means for finding program specific information included within the incoming data stream, and a first instance of decoder synchronization data in the cached data stream including decoder synchronization data received before the program specific information; and

~~decoding means for finding the decoder synchronization data within the cached data stream and~~ for decoding the cached data stream responsive to the ~~program specific information~~ first instance of decoder synchronization data.

8. (previously presented) The apparatus of claim 7, wherein the program specific information comprises program association table data and program map table data.

9. (previously presented) The apparatus of claim 7, further comprising transport means for filtering data, and wherein the processing means finds the program specific information by filtering data from the cached data stream via the transport means.

10. (previously presented) The apparatus of claim 9, wherein the data filtered from the cached data stream by the transport means comprises program map table data.

Customer No. 24498
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11. (previously presented) The apparatus of claim 7, wherein the decoder synchronization data corresponds to sequence headers according to the MPEG standards.

12. (previously presented) The apparatus of claim 7, wherein the processing means finds the program specific information by finding program association table data within the incoming data stream, finding program map table data using the program association table data, and finding at least one of video program identification data and audio program identification data using the program map table data.

13. (previously presented) The apparatus of claim 7, wherein the apparatus is a set-top box.

14. (currently amended) A digital communication apparatus having reduced channel change times, comprising:

means for receiving a data stream;

means for receiving a channel change command;

a cache memory operative to initiate storing of a portion of the data stream including decoder synchronization data in response to the channel change command;

a decoder operative to process the decoder synchronization data and to decode the data stream;

a processor, coupled to the receiving means, the cache memory, and the decoder, for immediately causing, in response to receipt of the channel change command, the portion of the data stream that follows the receipt including program specific information to be stored in the cache memory, for identifying the program specific information in response to the channel change command, for identifying a first instance of decoder synchronization data in the cache memory including decoder synchronization data received before the program specific information, and for causing the portion of the data stream stored in the cache memory to be processed by the decoder in response to the ~~identifying of the program specific information~~ first instance of decoder synchronization.

Customer No. 24498
Attorney Docket No. PU020105
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15. (previously presented) The digital communication apparatus of claim 14, wherein the program specific information comprises program association table data and program map table data.

16. (previously presented) The digital communication apparatus of claim 14, further comprising a transport operative to filter data, and wherein the processor is operative to find the program specific information by filtering data from the cached data stream via the transport.

17. (previously presented) The digital communication apparatus of claim 16, wherein the data filtered from the cached data stream by the transport comprises program map table data.

18. (previously presented) The digital communication apparatus of claim 14, wherein the decoder synchronization data corresponds to sequence headers according to the MPEG standards.

19. (previously presented) The digital communication apparatus of claim 14, wherein the processor is operative to find the program specific information by finding program association table data within the incoming data stream, finding program map table data using the program association table data, and finding at least one of video program identification data and audio program identification data using the program map table data.

20. (previously presented) The digital communication apparatus of claim 14, wherein the apparatus is a digital subscriber line set-top box.

21. (currently amended) A method for reducing channel change times, comprising:

receiving a channel change command;
immediately initiating caching of an incoming data stream associated with a newly selected channel in response to the channel change command, the cached data

Customer No. 24498
Attorney Docket No. PU020105
Advisory Action Date: 12/15/2009
Final Office Action Date: 09/04/2009

stream including header information used to start decoding video data included in the incoming data stream;

identifying ~~the~~ a first instance of header information in the cached data stream;
and

decoding the cached data stream in response to the identified first instance of header information.

22. (previously presented) The method of claim 21, wherein the header information corresponds to sequence headers according to the MPEG standards.

23. (currently amended) An apparatus, comprising:

a memory for immediately caching an incoming data stream associated with a newly selected channel responsive to a channel change command, the cached data stream including header information used to start decoding video data included in the incoming data stream;

a processor adapted to initiate the caching of the incoming data stream in response to receipt of the channel change command, and to find ~~the~~ a first instance of header information included within the cached data stream; and

a decoder, coupled to the memory, and adapted to decode the cached data stream responsive to the first instance of header information.

24. (previously presented) The apparatus of claim 23, wherein the header information corresponds to sequence headers according to the MPEG standards.